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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,721	12/20/1999	KENDYL A. ROMAN		2729
7590	05/24/2004		EXAMINER	
KENDYL A ROMAN 730 BANTRY COURT SUNNYVALE, CA 940873402			AN, SHAWN S	
			ART UNIT	PAPER NUMBER
			2613	
			DATE MAILED: 05/24/2004	13

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/467,721	ROMAN, KENDYL A.
	Examiner Shawn S An	Art Unit 2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 April 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.  
 4a) Of the above claim(s) 1-10 and 16-25 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 11-15 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Response to Reconsideration***

1. Applicant's arguments filed 4/29/04 with respect to claims 11-15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al (6,058,215) in view of Chang et al (6,005,979).

**Regarding claims 11, 14, and 15,** Chang et al discloses a machine for compressing video frames, comprising:

a video digitizer (col. 5, lines 5-8) for digitizing a frame from the video frames;  
a video memory (Fig. 1, 101) for receiving a plurality of pixels;  
an encoding circuit (Fig. 1B) for sub-sampling from each pixel (121) when scanning the plurality of pixels and outputting a series of encoded data comprising a combined run-length field and a data field (124); and  
a memory for storing encoded data and an input/output devices, which are storage medium and a communications transmission channel (Fig. 1B, Channel/storage).

Schwartz et al does not specifically disclose counting repeated instances of a pixel value comprising a number of pixel bits sub-sampled.

However, Chang et al teaches a system for compressing video frames comprising an encoding circuit (Fig. 1) for counting repeated instances of a pixel value (Fig. 3a) comprising a number of pixel bits sub-sampled from each pixel (Fig. 3b) and outputting a series of encoded data comprising a combined run-length field (Fig. 1, 27).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a machine for compressing video frames as taught by Schwartz et al to incorporate the specific concept of counting repeated instances of a pixel value comprising a number of pixel bits sub-sampled from each pixel as taught by Chang et al so as to provide a simple efficient lossless encoding scheme, thereby substantially saving costs associated with complex encoding scheme.

**Regarding claim 12,** Chang et al discloses selecting one of a set of 3, 4, 5, 8, 9, 12, 15, 16, and 24 as the number of pixel bits (col. 1, lines 33-43).

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al and Chang et al as applied to claim 11 above, and further in view of Frederiksen (4,743,959).

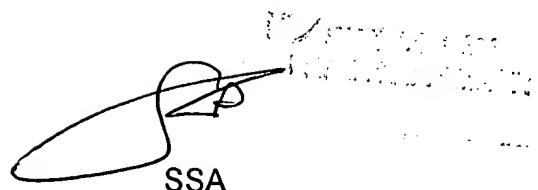
**Regarding claim 13,** the combination of Schwartz et al and Chang et al does not specifically disclose the pixel bits being extracted from the most significant bits of each color component.

However, Frederiksen teaches the pixel bits being extracted from the most significant bits of each color component (col. 7, lines 58-62) for filtering out noises which could happen in a low ordered bits.

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a machine for compressing video frames as taught by Schwartz et al to incorporate the well known concept of the pixel bits being extracted from the most significant bits of each color component as taught by Frederiksen for filtering out noises which could happen in a low ordered bits.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Shawn S An whose telephone number is 703-305-0099. The examiner can normally be reached on Flex hours (10).
6. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SSA

Primary Patent Examiner

5/17/04